

ABSTRACT OF THE DISCLOSURE

A frequency converter comprising a variable gain amplifier which amplifies the local oscillation signal according to a gain control signal and outputs
5 an amplified local signal, an even harmonic mixer which is supplied with an input signal and an amplified local oscillation signal and outputs an output signal whose frequency is a sum of a first frequency of the input signal and a second frequency of two or more even
10 numbered times a frequency of the amplified local oscillation signal, an amplitude detector which is supplied with the amplified local oscillation signal and outputs a direct current signal having an amplitude corresponding to an amplitude of the amplified local
15 oscillation signal, and a comparator which compares the direct current signal of the amplitude detector with the reference direct current signal to generate an output signal as the gain control signal.